

Translation

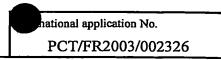


INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

(1 CT Fittele 30 and Rule 70)							
Applicant's or agent's file reference PaC302046PCT	FOR FURTHER AC	CTION	See Form PCT/IPEA/416				
International application No.	International filing dat		Priority date (day/month/year)				
PCT/FR2003/002326	23 juillet 2003	(23.07.2003)	25 juillet 2002 (25.07.2002)				
International Patent Classification (IPC) or national classification and IPC C08G 14/06							
Applicant SAINT-GOBAIN ISOVER							
 This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 							
2. This REPORT consists of a total of	5 sheets,	including this cover s	sheet.				
3. This report is also accompanied by	ANNEXES, comprising	:	·				
a. (sent to the applicant and	l to the International Bu	reau) a total of 2	sheets, as follows:				
sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).							
sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.							
b. (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).							
This report contains indications relations	ating to the following ite	ms:					
Box No. I Basis of the re	eport						
Box No. II Priority							
Box No. III Non-establish	ment of opinion with re	gard to novelty, inven	tive step and industrial applicability				
Box No. IV Lack of unity	of invention						
Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;							
l 	citations and explanations supporting such statement Box No. VI Certain documents cited						
Box No. VII Certain defec	ts in the international ap	plication					
Box No. VIII Certain observations on the international application							
Date of submission of the demand		Date of completion of this report					
25 septembre 2003 (25.0	9.2003)	-	ovember 2004 (22.11.2004)				
Name and mailing address of the IPEA/EP		Authorized officer					
Facsimile No.		Telephone No.					





Box No	. I	Basis of the report							
 With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item. 									
	This report is based on translations from the original language into the following language, which is language of a translation furnished for the purpose of:								
	international search (under Rules 12.3 and 23.1(b))								
	publication of the international application (under Rule 12.4)								
	international preliminary examination (under Rules 55.2 and/or 55.3)								
2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report): The international application as originally filed/furnished									
		escription:							
	pages	•	, as originally filed/furnished						
	page		, as originally med/furnished						
	pages								
	the c	laims:							
	pages		, as originally filed/furnished						
	pages		gether with any statement) under Article 19						
	pages		g,,						
1	pages	* 1-8 received by this Authority on	12 August 2004 (12.08.2004)						
	the d	rawings:							
	pages	_	, as originally filed/furnished						
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	pages	* received by this Authority on							
	a seg	uence listing and/or any related table(s) – see Supplemental Box Relating to Se	equence Listing						
	•	5 Company of the	equonos Bioling.						
3.	The	mendments have resulted in the cancellation of:							
3. 🖂									
		the description, pages							
	M	the claims, Nos. 1-8							
	\sqcup	the drawings, sheets/figs							
	닠	the sequence listing (specify):							
		any table(s) related to sequence listing (specify):							
4. 🔀	made	report has been established as if (some of) the amendments annexed to this as, since they have been considered to go beyond the disclosure as filed, as 70.2(c)).	report and listed below had not been s indicated in the Supplemental Box						
	\boxtimes	the description, pages4							
		the claims, Nos.							
		the drawings, sheets/figs							
		the sequence listing (specify):							
		any table(s) related to sequence listing (specify):							
* If item 4 applies, some or all of those sheets may be marked "superseded."									
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ational	al application No.	
PCT/FR	application No. 03/02326	

v.	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement						
1.	Statement						
	Novelty (N)	Claims	1-24	YES			
		Claims		NO			
	Inventive step (IS)	Claims	1-24	YES			
		Claims		NO			
	Industrial applicability (IA)	Claims	. 1-24	YES			
		Claims		NO			

- 2. Citations and explanations
 - 1.1 The amendment to claim 1 filed with the International Bureau in compliance with PCT Article 19(1) does not cause the subject matter of the application to be extended beyond the content of the application as filed. Said amendment is supported by page 7, lines 22-26.
 - 1.2 The amendment to the description (page 4, line 12) causes the subject matter of the application to be extended beyond the content of the application as filed. As a result, said amendment is contrary to the provisions of PCT Article 19(2).

In view of the explanation provided in the letter dated 9 August 2004 and on the basis of the description (page 6, lines 14-18), the amendment to page 4, line 12, of the description does not appear to be necessary.

2. Reference is made to the following documents:

D1: US-B-6 395 8191 (MAHIEUXE BRUNO ET AL)

28 May 2002 (2002-05-28);

D2: US-A-3 876 405 (EILERMAN GEORGE E)

8 April 1975 (1975-04-08);

D3: US-A-4 146 512 (WEAVER ELSWORTH J ET AL)

27 March 1979 (1979-03-27);

D4: US-A-4 282 330 (AUSTIN THOMAS H)

4 August 1981 (1981-08-04);

D5: EP-A-1 081 209 (ETHYL CORP)

7 March 2001 (2001-03-07).

3. The subject matter of claims 1-24 complies with the requirement of novelty defined in PCT Article 33(2).

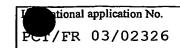
None of cited documents D1-D5 mentions a liquid resin having at least 1000% dilutability with water at 20°C and containing at least 70% by weight of condensates produced, by a simultaneous reaction, using a phenolic compound, formaldehyde and an amino alcohol and in accordance with the Mannich reaction.

4. The subject matter of claims 1-24 involves an inventive step as defined in PCT Article 33(3).

D1 is considered to be the closest <u>prior art</u> because D1 describes a sizing material for mineral fibres, based on a phenol-formaldehyde resin that is substantially free of urea or urea derivatives and has low isocyanate emissions.

The <u>difference</u> between the application and D1 relates to the fact that the condensate in the application is produced in a single step using a phenolic compound, formaldehyde and an amino alcohol and in accordance with the Mannich reaction.

The problem to be solved is that of providing a resin that has a low capacity for generating



undesirable gaseous formaldehyde emissions and does not require the use of urea or an amine to reduce the free-formaldehyde content.

The resin in D1 is produced in two steps: the resin is formed and the free formaldehydes and phenols are thereafter trapped using the amino alcohol. The application, on the other hand, solves this problem by adding the formaldehyde and the amino alcohol simultaneously. The examples in the application demonstrate that it is possible to arrive at a free-phenol and a free-formaldehyde content much lower than that of conventional compositions.

D2 does not relate to the reduction of gaseous emissions and describes a method for producing a condensate that is different from the one in the application. The same is true of D3-D5.

It follows that since a person skilled in the art would not have found any indications in D1 and D2 that would have led to this solution and since such a person seeking to reduce gaseous emissions would not have considered documents D3-D5, the solution proposed by the application does not appear to be obvious. As a result, the subject matter of claims 1-24 involves an inventive step as defined in PCT Article 33(3).